ARKANSAS RAILROADER

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The next scheduled meeting will be at 2:00 p.m. Sunday April 8, 1973 at room 3-5 Missouri Pacific Union Station. Program yet to be announced

ABANDONMENTS: AB-58, Reader Railroad approved by certificate and order by review board No 5 (served March 9) Line between Reader and Waterloo, Ark. a distance of 23.5 miles, effective 35 days from service date.

SALVATION: At least hopefully. Senate Bill 494 and House bill also passed. Authorizing State Parks Recreation and Tourism Department to issue bonds and purchase the Reader.

Word is also received of the formation of a Committee to Save the Old Cincinnati Union Terminal. The organization has an option to buy the rotunda and have reached an agreement with the appropriate authorities to lease the Concourse for 49 years. The concourse will be raised to accommodate S.R.'s new container terminal. Donations are being accepted.

SCHEDULES: Southern Railway's first 1973 steam schedule is attached as the final page of your bulletin.

NEXT MONTH: Your bulletin will carry an article on Arkansas' newest railroad the East Camden & Highland with pictures. Received too late to be printed in time for this issue.

Hopefully there will be further news of the Scott & Bearskin Lake RR Coach for the next issue.

We go to press early this month inasmuch as your editor departs for a week into ICG, Southern & SCL territory. Hopefully he will return with a picture or two of interest.

[illegible]: Missouri Pacific Railroad, Line between Palmhurst and Alton, Texas a distance or 2.21 miles

St. Louis San Francisco, Line between Vanduser and Tanner, Mo. a distance of approximately 4.9 miles.

St. Louis San Francisco, Line between Monette and Lake City, Ark. a distance of approximately 8.5 miles.

MICROWAVE LINKS: Frisco has awarded contracts to build a microwave relay system. It will extend from St. Louis to Tulsa and from Kansas City to Birmingham. Terminals or repeaters will be located in 35 points.

Illinois Central Gulf has begun adding the old Gulf Mobile & Ohio points to their computer network with the first being Laurel, Miss. The network will be known as MAIN (Mid America Information Network.) Bu June they expect to list 30 fromer GM&O points.

# THE MISSOURI PACIFIC'S CONSDLIDATION TYPE LOCOMOTIVES

BY

W. M. "MIKE" ADAMS

The 2-8-0- type locomotive with a radial two wheel pilot truck and eight pairs of coupled driving wheels was first placed in service on the Lehigh and Mahanoy Railroad, a division of the Lehigh Valley, in July, 1866. Built by Baldwin Locomotive Works in accordance with plans and specifications furnished by Mr. Alexander Mitchell, then Master Mechanic of the L&M RR., this locomotive was designed to handle freight trains on grades as steep as 126 feet to the mile. In recognition of the just completed organization of several small lines into the Lehigh Valley, this locomotive was named "Consolidation"

At that time the 4-4-0 or "American Standard" locomotive was in its ascendancy and provided motive power for the majority of freight and passenger trains in the United States. The Consolodation type was built for heavy freight service under severe grade conditions and was not then and never did become, in any of its forms, a true high speed machine. At the time it was developed it was probably heavier than most roads could accommodate and its introduction caused a gradual upgrading of physical plant and a strengthening in freight equipment to withstand the newly unleashed drawbar pull.

From 1866 until the abrupt slackening off in orders with the development of the Mikado type about 1910, there were more Consolidation type locomotives built and placed in sercice in the United States than any other type. A. W. Bruce of the American Locomotive Company estimates that approximately 33,000 were built in the United States of which about 21,000 were in main line freight service.

It should come as no surprise then to learn that the 2-8-0 was the most numerous of any type in service on the Missouri Pacific and the various lines that went into its makeup. As near as I can determine, over 440 Consolodations earned their keep on the greater Missouri Pacific at one time or another. In the final swan song of steam on the Missouri Pacific, a pair of 2-8-0's handled the final steam run from Bush to Dupo, Illinois, furnishing the power for a string of their dead brethern headed for the scrap line.

Following the Civil War, the Baldwin Locomotive Works offered two standard plans of 2-8-0 locomotives for prospective buyers. The smaller of the two examples was designated as their 10-34-E and in 1879 the Missouri Pacific ordered four of these locomotives for use on the grades between St. Louis and Chamois, Missouri. Numbered 107 to 110 they were received and placed in service January 1880.

On January 30, 1883, Mr. John Hewitt, then Superintendent of Motive Power and Machinery for the Missouri Pacific addressed the following letter to the builders: Gentlemen: The four Consolidation locomotives Nos. 107, 108, 109 and 110 came to hand in good order, and have been put together by your engineer. We have made several changes in minor details (which we think are improvements) for convenience. The general design and finish, however, are very satisfactory, and the performance of Nos. 107 and 108, which have run a few trips, is fully up to our expectations. With careful firing, they make an abundance of steam, and haul TWICE as many cars as our 8-wheeled locomotives with 16 3/4 X 24 cylinders and 57" driving wheels. On trial trip, No. 108 hauled 47 loaded 8 wheel cars up Marmec grade, which is 4 miles lon, 45' to the mile, and combined with curves varying from 2,865' to 1,433' radius. The total weight of engine, tender and train was about 1,100 tons of 2,000 bounds. So far we are very much pleased with them and have no doubt their performance will recommend the adoption of this class for the heavy grades on this road."

These locomotives had 20 X 24 inch cylinders, 50" driving wheels and weighed, in working order, 102,000 lbs. Apparently Mr. Hewitt's prediction was correct for in the next two years, the Missouri Pacific ordered 16 more of these machines plus an additional 10 near duplicates from the Hinkley Locomotive Works.

Some time subsequent to their purchase and prior to 1905, these locomotives were all renumbered 827 through 836. In the 1905 general re-numbering they were changed to 851 through 860 and bore these numbers to the scrap line.

It was in the year 1879 that financier Jay Gould wrested control of the Missouri Pacific from a New York group headed up by D. R. Garrison and just over a year later took over the reins of the St. Louis, Iron Mountain and Southern. From that day until complete absorption of the Iron Mountain by the Missouri Pacific in 1917 the two roads were closely allied and their motive power was built to more or less common standards until finally, in Decembrt 1905, all motive power of the two roads was re-numbered into a common series. In 1881 the Iron Mountain purchased from the Grant Locomotive Works five Consolidations of the same pattern as the MoPac machines and numbered, originally, Nos. 141 to 145. These locomotives were later re-numbered Nos. 383 to 387. and in the 1905 melee came out as Nos. 889 to 893

In 1884 the Iron Mountain bought again. This time ten more 2-8-0's all from Baldwin. Two of them, originally Nos. 337 and 339, had 20 X 24 inch cylinders and 50 inch drivers. These locomotives became 841 and 842 in 1905. The remaining eight had 22X 22 inch cylinders and 50 inch drivers and were originally numbered 332 through 336, 338, 340 & 341.

In the 1905 number change, they emerged in the same order as Nos. 681 to 688. In 1887 the Missouri Pacific again went shopping and purchased 30 more Consolidations. Twenty of them, originally numbered 945 to 964 came from the New York Locomotive Works at Rome, New York, and were generally referred to as "Rome" locomotives. Re-numbered 801 to 820 in 1905, they had 20 X 24 inch cylinders and 50 inch drivers. Engines 965 to 974, later the 821 to 830 were built by Baldwin.

This buying spree, totaling 75 locomotives, ended with the year 1887 and it was to be 14 years before the MoPac-Iron Mountain again went to the market shopping for Consolidation locomotives. Not that they didn't buy power, however, for during the dacade of the Nineties, large numbers of locomotives were bought and placed in sercice. most of them of the ten wheel or 4-6-0 variety.

By July 1, 1924 only 18 of the 800's were left and they were scrapped soon thereafter. In the year 1901, the Missouri Pacific-Iron Mountain started placing orders for loco otives that resulted in the addition of 304 Consolidation types alone by 1910. The first to enter the fold sas Iron Mountain units 1851 to 1890, re-numbered in 1905 to 501-540.

These engines were built by Brooks Locomotive Works and had 19½ X 28 inch cylinders and 55 inch drivers. They were built with the so-called Belpaire boiler, a staying method theat results in a squared-off boiler section over the fire box, a type of boiler that was system standard on the mighty Pennsylvania Railroad and also used extensively by the Great Northern.

Many Iron Mountain engines, including large numbers of ten-wheelers (4-6-0) had the Belpaire boiler as did all of the 1800 series 4-6-0's also built in the early 1900's The Iron Mountain must have had nearly 200 locomotives with this type of boiler yet this fact is never mentioned by the knowledgeable "railroad" writers in the trade magaziens, etc., when discussing users of the Belpaire staying system.

In 1903 the Iron Mountain bought engines 1821-1825, later the 541-545 with the same specifications but built by the specialist Baldwin Locomotive Works. Also in 1903, the Iron Mountain purchased, again from Brooks, a new series of 2-8-0's. this time with a wide fire-box spanning the rear drivers and capable of sustaining maximum boiler pressure with less coal and effort. These locomotives, originally numbered 1831-1850 later became 438-457. The Missouri Pacific ordered similar power, engines 1262-1278, which became the 401 to 417 in the 1905 rematch.

In 1904 both roads again went shopping. the Missouri Pacific receiving Nos. 1279-1298, later the 418-437, while the Iron Mountain came up with the 1891 to 1920, re-numbered 458-487. These were very trim locomotives, greatly resembling the 6500 class light Pacific in their boiler lines and fittings. They had the Brooks cylinders which sloped into the steam chest. The basic specifications were the same as the units that became the 500 class but the wide free burning firebox made the difference. The 500 class engines were about all scrapped by the time World War II rolled around while some of the 400's lasted right up to the end of steam.

Many were extensively rebuilt with piston-valves, superheaters, and [illegible] valve gear and in yard service and on the branch lines earned many a dollar for the owners.

In May 1905, the Missouri Pacific received the first of the well-known "spot" engines. Built by Baldwin Locomotive Works and numbered from One-Spot on, the first 25 were lettered for the parent company while engines 26 to 50 were lettered for the Iron Mountain. In the December 1905 number changing fracas, these engines emerged unscathed. One of these engines, from 46-50 and perhaps more, had Vanderbilt tenders. The only such example of the MoPac--Horrors ! I saw one of these tenders retired from active service being used to furnish water and coal for a work train at Hobart, Missouri in the early 1930's.

As built, these locomotives had 22 X 30 inch cylinders and 63 inch drivers. They were saturated, the superheater still being in the offing, and operated at 180 lbs. steam pressure. In April, May, June and July 1907, engines 51 through 100 were received while in October and November, 1909 found the roads receiving Nos. 101 through 130; the last thirty units being built by American Locomotive Company which also built engines Nos. 131 through 160 in August, 1910. It is not known just which of these locomotives were numbered for the Missouri Pacific and which for the Iron Mountain.

I have in my collection, a shot of Engine 108 taked in 1912 and it is lettered for the Iron Mountain. I also have builders photos of the 98 spot and the Number 104 and both of them were lettered Missouri Pacific.

In April and again in October, 1909, twelve identical engines were built for the "L. J. Smith Construction Company" and numbered from 201 to 212. The first seven by Baldwin and the remainder by Alco. Sometime subsequent to 1910, these engines were transferred to the ownership of the Missouri Pacific-Iron Mountain and re-numbered 161-172. John Baskin Harper is of the opinion that the L. J. Smith Construction Company was a Missouri Pacific holding company organized to rebuild the Cnetral Kansas-Colorado Division of the MoPac and these locomotivew were bought in the company name in one of the Gould arranjements in financial daring-do. This may very well be the case. It does seem like a lot of heavy locomotives for a re-building job. I have in my collection of locomotive pictures a shot of the 202 lettered for the L. J. Smith Construction Company and, of course, it is identical withe the remainder of the spot engines.

Finally in December, 1942, the North Little Rock Shops turned out the 173 spot, built according to John, from spare parts. These spot engines worked for the Missouri Pacific for nearly fifty years and the mechanical department had a field day with them. Originally most had the Stephenson Valve Gear but over the years all but three were equipped with either Walscharet or Baker valve gear and superheated. At one time Engine 25 had the Southern valve gear. The last specification sheet for these engines, revised January 1, 1953 shows no less than twelve variations in cylinders, frames, oil or coal, or other factors that changed the weight group and affected the tractive effort.

Many of them received a cast steel engine bed when this type of construction was normally applied to heavy Mountain and Northern type power. When built, of course, the spot engines were heavy main line freight power but were replaced on all the primary main lines by the advent of the 1200 class Mikados which started arriving in 1911. I can remember when the spot engines came to the White River Division. I thought they were huge and so they were when compared to the 260 class ten-wheeler. For about 8 or ten years they handled the red-balls on the White River until replaced by the 120's. They were used all ofer the system in local freight service and on traveling switch engines.

At Cornell, Kansas in the heart of the strip-pit mining area, the MoPac kept about 15 of them busy all winter hauling "Jayhawk" coal while a much larger number worked the extensive Illinois field and the many mine branches over there. Several were sold or leased to the Missouri-Illinois Railroad. Many of the engines were converted to oil-burners and several worked on the Texas-Louisiana Lines. I have a picture made in 1938 by H. K. Vollrath of Engine 53 rambling along east of DeQuincy, Louisiana with a solid train of Texas grapefruit.

In the late thirties, the traveling switcher at my old home town of Carthage, Missouri was always a spot engine. I remember teh 112 better than most, probably because the yard caboose was an old bob-tailed side door job also numbered 112. This always struck a responsive chord in me for some reason or other- I guess I thought it was funny. One day while handling about a dozen cars of Carthage limestone, old Tim Shea, the earstwhile "hogger" of the switcher, made a rough stop and pulled the whole end out of the caboose. I don't remember the number of the one th at replaced it- it must not have matched numbers with any of the engines.

I suppose there was an engine considered a "hoodoo" on practically every division. On the White River this was the 126. Engineer M. F. McNabb was at her throttle when she up-ended on the approach fill to the bridge over Highway 62 and George's Creek, a few miles north of Yellville, Ark. Anytime anyone was hurt or a switch ran through or a sideswipe, you usually didn't have to look far to find the 126. I believe it was engineer U. S. Moutzon who was pounding her up the hill to the south portal of Cricket tunnel when a large rock fell out of the mouth of the tunnel and struck the safety valves and put a stop to any further progress that day. Transfering her to another division didn't help for the jinxed 2-8-0 was on the Malvern Switcher when they ran her out in front of the 1406 and my good friend Engineer Claude Hatfield running as Fourth No 7 near Perla Ark., January 16, 1942.

Back to the business at hand; The Missouri Pacific took over the so-called Texas Louisiana Lines in 1925. They were, principally, the international Great Northern, the New Orleans, Texas and Mexico, the St. Louis, Brownsville and Mexico and the San Antonio, Uvalde and Gulf.

The NOTM and the STLB&M were incorporated, loosely, into the so-called Gulf Coast Lines and at one time had been allied with the Frisco and much of their early motive power came from the Frisco's stable. The Missouri Pacific inherited a large number of Consolidation Locomotives with these lines, all re-numbered by the MoPac into the 1000 series.

In 1949 there was still a total of 53 2-8-0's on these prpperties, and I believe they had at least 65 to 70 such engines when the Missouri Pacific took over.

Engines 1031 to 1040 were ex-NOT&M 101 to 110 and ex-SLSF 971 to 980, built by Baldwin in 1907 with 21 X 28 cylinders, 185 lbs. steam pressure and 55 inch drivers. Engines 1011 to 1030 were ex-StL&M (GCL) 81 to 100 built by Baldwin in 1914 with 2[illegible]x28 inch cylinders, 2[illegible] lbs. steam pressure and 57 inch drivers. Engines 1051 to 1073 were ex I-GN 401 to 422 (and [illegible]s perhaps more) built by Baldwin in 1912 and 13 with 22 x 30 cylinders, 20[illegible] lbs. steam pressure and 57 inch drivers. These were bib-boilered Consolidations and were heavier than many of the parent MoPac spot engines. Numbered between 1001 and 1010 was a collection of little 2-8-0's built for a conglomeration of short lines ingested in the consolidation.

An example would be Engine 1002, formerly SAUG No. 24. Built by American Locomotive Works in 1913 with 20 X 24 inch cylinders, 190 lbs. steam pressure and 51 inch drivers. Another example would be Engine 1009 which was formerly a San Antonio Southern freight hauler. Two more consolidations appearing on the Missouri Pacific were the 550, bought about 1922, origin unknown built by Baldwin in 1902, perhaps for the Arkansas Central and engine 910 built by Brooks Locomotive Works in 1904 and purchased by the Missouri Pacific in 1910, former owner also unknown. This engine had 19 X 26 cylinders, 160 lbs. steam pressure and 51 inch drivers.

At 9:20 A.M. April 7, 1955, Engineer A. W. Troost, high in the cab of Engine 124 reached up and grasping the whistle lever, sent two sharp blasts echoing from the barn like depot at Bush, Illinois. Engineer F. G. Farmer on Engine 40 acknowledged the highball and they eased out the throttles of the old Consolidations and the last steam operated train on the Missour Pacific was under way. Extra 124 North was not a long train but it was heavy. It consisted of Engines 124 and 40, coupled with an auxiliary water car in between, followed by Engines 15, 21, 26, 77, 89, 43, 127, 26 with the 1559, a heavy Mikado, just ahead of the caboose. All of course, except 124 and 40 were dead and enroute on a 112 mile journey to the scrap yard at Dupo, Illinois.

It had fallen to Engine 15 the honor of handling the last revenue train on the railroad for about 3:00 P.M. the preceeding day; she had left Bush Yards and distributed a string of empty coal cars to the nearby Illinois mines and returned about 11:00 P.M. that night with a train of loaded coal cars to complete the final revenue trip by steam power on the Mo-Pac.

Engine 4350 a shining new EMD GP 9 type diesel had arrived the evening before and this was enough additional motive power, according to St. Louis to dispense with all steam operations. Sad to say, the steam engine did not bow on the Missouri Pacific in a blaze of glory- it died an ignominious death. The load of dead steam engines was more than the 124 and 40 spot could handle. The extra kept losing time and finally the 40 spot ran out of water. Engine 124 had the auxiliary water car to draw from but it could not handle the train alone and finally, almost in the shadow of Dupo Yards, Conductor Walster was forced to call for help on the caboose radio.and an EMD GP 7 Engine 4262 was sent from Dupo to lend a hand. The train finally arrived at Dupo where Extra 124 North died at 11:45 P.M. April 7, 1955, ringing down the curtain on over 100 years. of steam operation.

# SOUTHERN RAILWAY STEAM SCHEDULE
## First Edition - 1973
(March 30 - June 10)

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| Friday, March 30 | Birmingham to Atlanta -- one way. (School children trip)* Engine No. 750. |
| Saturday, April 7 | Birmingham to Chattanooga and return. Sponsored by Heart of Dixie Chapter, National Railway Historical Society (NRHS). Engine No. 722 (round trip). Engine No. 4501 (northbound only). |
| Sunday, April 8 | Chattanooga to Knoxville -- one way. Engine No. 4501. |
| Saturday, April 14<br>Sunday, April 15 | "Dogwood Special," Atlanta to Gainesville and return. Sponsored by Atlanta Chapter, NRHS. Engine No. 4501 each day. |
| Saturday, April 21 | Knoxville to Oneida and return. Sponsored by Old Smoky Chapter, NRHS. Engine No. 4501. |
| Tuesday, April 24 | Knoxville to Chattanooga -- one way. (School children trip). Engine No. 4501. |
| Saturday, April 28<br>Sunday, April 29 | Chattanooga to Gadsden via TAG and return via AGS. Sponsored by Tennessee Valley Railroad Museum. Engine No. 4501 each day. |
| Wednesday, May 2 | Atlanta to Macon -- via C. of Ga. (School children trip) Engine No. 750. |
| Thursday, May 3 | Macon to Albany -- one way. (School children trip) Engine No. 750. |
| Friday, May 4 | Albany to Dothan -- one way. (Arlington Centennial) Engine No. 750. |
| Saturday, May 5 | Dothan to Albany and return. Sponsored by Wiregrass Chapter, NRHS. Engine No. 750. |
| Sunday, May 6 | Dothan to Albany -- one way. (Arlington Centennial) Engine No. 750. |
| Monday, May 7 | Albany to Macon -- one way. (School children trip) Engine No. 750. |
| Tuesday, May 8 | Macon to Augusta -- one way. (School children trip) Engine No. 750. |
| Saturday, May 12 | Augusta to Savannah and return. Sponsored by Augusta Chapter, NRHS. Engine No. 750. |
| Sunday, May 13 | Augusta to Charleston -- one way. Engine No. 750. |
| Saturday, May 26 | Charleston to Columbia, S. C. and return. Sponsored by Charleston Chapter, NRHS. Engine No. 750. |
| Saturday, June 9<br>Sunday, June 10 | New Albany, Ind. (across river from Louisville, Ky.) to Huntingburg, Ind., and return. Sponsored by Louisville Chapter, NRHS. Engine No. 4501 each day. |

(The proposed movement of Engine No. 4501 in late June and early July will be from Louisville, Ky., to Chicago, Ill., thence Madison and Milwaukee, Wis., back to Chicago and from Chicago to Baltimore, Md. A number of these movements will carry passengers. Routes and times will be announced in the near future.)

* "School children trip" means primarily for school children on weekdays. However, trip open to all if space is available.